

CLAIMS

What is claimed is:

1. A displaceable ball hitch assembly configured to be mounted in a bed of a truck, comprising:
 - 5 a platform track defining a track space therein and configured to be mounted in the bed of the truck;
 - a displaceable platform configured to be positioned in the track space and including a ball hitch coupled thereto;
 - a gate member configured to be coupled to the platform track and including a gate
 - 10 portion extendable into the track space;
 - a driving mechanism configured to be operatively coupled to the gate member and configured to facilitate displacement of the displaceable platform; and
 - a switch control configured to be operatively coupled to the driving mechanism and configured to be located in a cab of the truck to manually control activation of the driving
 - 15 mechanism from the cab.
2. The displaceable ball hitch assembly of claim 1, wherein the gate portion is configured to maintain the platform in a first primary position in the track space and configured to be movable from the track space to allow the platform to displace in a rearward direction to a
- 20 second position within the track space.
3. The displaceable ball hitch assembly of claim 1, wherein the driving mechanism is configured to automatically displace the gate portion from the track space.
- 25 4. The displaceable ball hitch assembly of claim 2, wherein the first primary position provides that the ball hitch is located adjacent to and forward of an axis corresponding with a rear axel of the truck.
- 30 5. The displaceable ball hitch assembly of claim 2, wherein the second position provides that the ball hitch is located rearward of an axis corresponding with a rear axel of the truck.
6. The displaceable ball hitch assembly of claim 1, wherein the gate portion comprises a piston displaceable between a closed gate position and an open gate position, the

piston being spring biased toward the closed gate position and the piston being displaceable to the open gate position via the driving mechanism.

7. The displaceable ball hitch assembly of claim 1, wherein the drive mechanism
5 comprises an air supply configured to be operatively coupled to the gate member to facilitate pneumatic displacement of the gate portion to an open gate position to allow displacement of the platform.

8. The displaceable ball hitch assembly of claim 1, wherein the drive mechanism is
10 configured to facilitate displacement of the gate portion hydraulically.

9. The displaceable ball hitch assembly of claim 1, wherein the drive mechanism is configured to facilitate displacement of the gate portion electrically.

10. The displaceable ball hitch assembly of claim 1, further comprising a main
15 mounting plate configured to be mounted to the truck below the bed of the truck and coupled to the platform track.

11. A displaceable ball hitch assembly configured to be mounted in a bed of a truck,
20 comprising:

a platform track defining a track space therein and configured to be mounted in the bed of the truck;

a displaceable platform configured to be positioned in the track space and including a ball hitch coupled thereto;

25 a driving mechanism configured to be operatively coupled to the displaceable platform and configured to facilitate displacement of the displaceable platform; and

a switch control configured to be operatively coupled to the driving mechanism and operable to control activation of the driving mechanism manually from a cab of the truck.

12. A method for facilitating a fifth-wheel trailer to be towed by a truck, the method
30 comprising:

mounting a platform track, defining a track space therein, in a bed of a short-bed truck;
positioning a displaceable platform with a ball hitch coupled thereto in the track space;

coupling a gate member to the platform track with a gate portion extendable into the track space;

operatively coupling a driving mechanism to the gate member in the truck to facilitate displacement of the displaceable platform; and

5 operatively coupling a switch control to the driving mechanism in a cab of the truck for manually controlling activation of the driving mechanism from the cab of the truck.

13. A method for pulling a fifth-wheel trailer with a short-bed truck, the method comprising:

10 providing a displaceable ball-hitch assembly in a bed of a short-bed truck, the displaceable ball-hitch assembly including a platform track mounted in the bed of the truck, a platform with a ball hitch coupled thereto and disposed in a track space defined in the platform track, and a gate member coupled to the platform track with a gate portion extendable into the track space;

15 coupling a gooseneck type assembly extending from a fifth-wheel trailer to the ball hitch of the displaceable ball-hitch assembly;

pulling the fifth-wheel trailer with the short-bed truck so that the platform is positioned in the track space in a first primary position;

20 activating a drive mechanism from a switch control within a cab of the truck to displace the gate portion from the track space of the platform track; and

displacing the platform rearward to a second position in the track space prior to driving the truck with a 90 degree turn.

14. The method of claim 13, wherein the activating comprises switching the switch
25 control in the cab of the truck to an on-position to activate the drive mechanism for placing the gate portion in an open gate position.

15. The method of claim 14, wherein the displacing comprises driving the truck
30 forward to displace the platform rearward from the first primary position to the second position.

16. The method of claim 15, further comprising switching the switch control to an off-position to release the drive mechanism and to lock the platform in the second position in the track space.

17. The method of claim 13, further comprising, subsequent to driving the truck in the 90 degree turn, switching the switch control in the cab of the truck to an on-position to activate the drive mechanism for placing the gate portion in an open gate position.

5 18. The method of claim 17, further comprising driving the truck backwards to displace the platform forward from the second position to the first primary position.

19. The method of claim 18, further comprising switching the switch control to an off-position to release the drive mechanism and to lock the platform in the first primary position
10 in the track space.